

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

RYAN C. INMAN,

Plaintiff,

v.

**GENERAL ELECTRIC COMPANY,
RICHARDSON ELECTRONICS, LTD,
MCM ELECTRONICS, and CBS
CORPORATION**

Defendants.

**RICHARDSON
ELECTRONICS, LTD,**

Third Party Plaintiff,

v.

**VARIAN INC., VARIAN MEDICAL
SYSTEMS, INC. and VARIAN
SEMICONDUCTOR EQUIPMENT
ASSOCIATES, INC., as successors-in-interest
to VARIAN ASSOCIATES, INC.**

Third Party Defendants

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MEMORANDUM OPINION

September 20, 2016

I. INTRODUCTION

Plaintiff, Ryan C. Inman (“Inman” or “Plaintiff”), filed an Amended Complaint alleging claims of: (1) Strict Liability¹; (2) Breach of Warranty of Merchantability; (3) Breach of Fitness for a Particular Purpose; (4) Negligence; (5) Negligence Per Se; and (6) Breach of Express Warranty against several Defendants including General Electric Company (“GE”), Richardson Electronics, Ltd. (“Richardson”), MCM Electronics (“MCM”), and CBS Corporation

¹ Plaintiff’s strict liability claim includes defects in design and manufacture, failure to warn, and selling and/or distributing defective and unreasonably dangerous products.

(“CBS”)(collectively “Defendants”).² Richardson filed a Third-Party complaint seeking contribution, indemnification, and reimbursement from Third-Party Defendants, Varian Inc. (“Varian”), Varian Medical Systems, Inc. (“Varian Med”), and Varian Semiconductor Equipment Associates, Inc. (“VSE”) as successors-in-interest to Varian Associates, Inc. (collectively the “Varian Defendants”).

CBS and GE have filed, jointly, a motion for summary judgment, Richardson and the Varian Defendants have filed a joint motion for summary judgment, and MCM has also filed a motion for summary judgment. Plaintiff has responded, and the motions are now before the Court.

II. STATEMENT OF THE CASE

In May 2001, Plaintiff began purchasing and refurbishing vintage and antique electronic equipment, as well as testing and power supply devices for this equipment. CBS & GE Concise Statement of Undisputed Material Facts (“CBS/GE CSUMF”) ¶ 1; Richardson & Varian Concise Statement of Material Facts (“R/V CSMF”) ¶ 1. Plaintiff’s work with electronics was strictly a hobby. CBS/GE CSUMF ¶ 2; R/V CSMF ¶ 1. Plaintiff asserts that this hobby exposed him to certain vacuum tubes which he acquired from flea markets, garage sales, estate sales, the electronic department of his school and from on-line dealers. Plaintiff’s Counter-Statement of Facts (“Plaintiff CSF”) ¶ 2³.

² These are the Defendants remaining in the action as several parties have been dismissed since the filing of the First Amended Complaint.

³ Pursuant to Local Rule 56(B)(1), a concise statement of material fact must contain a citation “to a particular pleading, deposition, answer to interrogatory, admission on file or other part of the record supporting the party’s statement, acceptance or denial.” Any statement of fact

Some of the electronic equipment Plaintiff worked with contained rectifiers, also known as vacuum tubes, which were instilled with elemental mercury inside the tube's glass envelope that was sealed under vacuum. CBS/GE CSUMF ¶¶ 3, 10, 11, 14, 15, 18 & 19; R/V CSMF ¶ 2. Plaintiff contends that between May, 2001 and 2009, while engaged in his activities with the electronic equipment, he was exposed to mercury and mercury vapors which caused him to develop mercury poisoning in 2009. R/V CSMF ¶ 2. Plaintiff further contends that he did not know the vacuum tubes at issue contained mercury. Plaintiff CSF ¶ 3.

These vacuum tubes used elemental mercury, under vacuum, to convert alternating current ("AC"), also called house current, to direct current ("DC") which was then supplied to other components in the electronic unit. CBS/GE CSUMF ¶ 35. When energized and sufficiently heated, the instilled mercury is converted into an ionized gas or vapor that converts the AC current to a DC for the rest of the system. *Id.*

CBS is the successor-in-interest to Westinghouse Electric Corporation and its tube making affiliates, and GE is the successor-in-interest to RCA Corporation and its tube making affiliates. Amended Comp. ¶¶ 3 & 5. Among the vacuum tubes designed, manufactured, sold and/or distributed by CBS and GE that were purchased or otherwise acquired by Plaintiff between May 2001, and May 21, 2009, were: (1) Type 83; (2) Type 866/866-A; and (3) Type 872/872-A. CBS/GE CSUMF ¶¶ 9, 13 & 17. The above-noted vacuum tubes were manufactured between the mid-1930s and the late-1960s. CBS/GE CSUMF ¶¶ 12, 16 & 20. Plaintiff did not acquire any vacuum tube directly from CBS, GE, Westinghouse or any of its tube manufacturing affiliates, or RCA or any of its tube manufacturing affiliates. CBS/GE CSUMF ¶¶ 5, 6, 7 & 8.

not so supported will be given no weight for the purpose of deciding the motion for summary judgment.

Plaintiff contends that the Type 83, Type 866/866-A, and Type 872/872-A vacuum tubes failed when a tube's glass envelope separated from the tubes base while the tube was under power, and when a tube's glass envelope shattered⁴ while the tube was under power. The Type 866/866-A, and Type 872/872-A vacuum tubes also failed when one of the tubes cracked at its juncture with the tube's cap plate while the tube was under power. CBS/GE CSUMF ¶¶ 27, 28 & 29. The Type 83 vacuum tube was instilled with 0.5 grams of elemental mercury in the tube's glass envelope. CBS/GE CSUMF ¶ 10. The Type 866/866-A vacuum tube was instilled with 3.0 grams of elemental mercury in the tube's glass envelope. CBS/GE CSUMF ¶ 14. The Type 872/872-A vacuum tube was instilled with 2.0 grams of elemental mercury in the tube's glass envelope. CBS/GE CSUMF ¶ 18.

Plaintiff alleges that certain mercury-containing vacuum tubes that he used in his electronics activities were manufactured by Defendant Richardson in its capacity as successor-in-interest to National Electronics⁵, including the following types of vacuum tubes: (1) NL-615; (2) NL-635; (3) NL-649; and (4) NL-8008. R/V CSMF ¶ 4. All of these tubes were manufactured between the 1930s and 1960s. *Id.* Plaintiff testified that of the NL vacuum tubes he used, he only experienced a tube failure with the NL-635. R/V CSMF ¶ 7. The NL-635 vacuum tube contained 0.5 grams of mercury. R/V Response to Plaintiff CSF ¶ 16.

⁴ Plaintiff, however, did not describe such failure as a catastrophic failure or one that destroyed the envelope of the tube. Instead he described the failure as follows: "Right before the failure, there would be a massive arc inside of the tube, followed by the filament burning out, or ceasing to ignite, and then the tube would physically shatter, not completely, maybe -- perhaps just the side of it" Plaintiff Depo. Vol I, p. 81.

⁵ Richardson also contends that the Varian Defendants were successors-in-interest to National Electronics with respect to any National-branded vacuum tubes manufactured prior too Richardson's acquisition of National's assets in April 1981. R/V CSMF ¶ 5.

Plaintiff contends he experienced a failure mechanism with four (4) NL-635 vacuum tubes which he described as “exhaust tip failure.” R/V CSMF ¶ 9. He described an exhaust tip failure as a failure of the vacuum tube inside and at the base of the tube while under load resulting in a failure of the filament to light up, which left fragments of the exhaust tip within the DC power supply chassis where the tubes were mounted. R/V CSMF ¶ 10. Plaintiff testified that when he opened the chassis containing the NL-635 tubes after exhaust tip failures, he never saw any elemental liquid mercury within the tube chassis. R/V CSMF ¶ 11.

Plaintiff also purchased electronic equipment from MCM during the times relevant to this litigation. Pl. Exhibit 14, Plaintiff Affidavit ¶ 8. Aside from six (6) purchases from MCM, made after 2003, which appeared on Plaintiff’s mother’s credit card, Plaintiff alleges he purchased four (4) Westinghouse Type 83 vacuum tubes from MCM in 2001. Pl. Exhibit 14, Plaintiff Affidavit ¶¶ 9 & 14. These Type 83 tubes experienced the same failures described above. Pl. Exhibit 14, Plaintiff Affidavit ¶ 15.

In addition, Plaintiff further contends that he was exposed to additional mercury from all Defendants’ vacuum tubes because approximately 40% of the individual tubes, and/or tubes shipped with the electronic equipment, arrived broken. Plaintiff’s Response to CBS/GE CSUMF ¶ 23; Plaintiff’s Response to R/V CSMF ¶ 6. Plaintiff, however, admitted that he never saw elemental or liquid mercury in the packages containing the shattered and damaged vacuum tubes. Pl. Ex. Plaintiff Depo. Vol. I, p. 74. Further, Plaintiff testified that he did not store these broken tubes in his work area, the tubes, as well as the boxes in which the tubes were shipped, were discarded. *Id.* at pp. 96-97.

When Plaintiff worked with the Defendants vacuum tubes between 2001 and 2009, he did so inside a small, windowless, cinder block room under the side porch of his parents’ house. CBS/GE CSUMF ¶ 22; Plaintiff CSF ¶ 17. On or about May 21, 2009, Plaintiff underwent

heavy metal urinalysis, and the results reported on June 4, 2009, indicated Plaintiff's urine mercury content exceeded 1,500 mcg/l. Plaintiff Exhibit 2. Plaintiff then learned for the first time that the vacuum tubes at issue in this case contained mercury. Plaintiff CSF ¶ 26.

Thereafter, Plaintiff stopped using the vacuum tubes. Plaintiff CSF ¶ 27.

III. LEGAL STANDARD FOR SUMMARY JUDGMENT

Pursuant to Rule 56(c) of the Federal Rules of Civil Procedure, summary judgment shall be granted when there are no genuine issues of material fact in dispute and the movant is entitled to judgment as a matter of law. To support denial of summary judgment, an issue of fact in dispute must be both genuine and material, *i.e.*, one upon which a reasonable fact finder could base a verdict for the non-moving party and one which is essential to establishing the claim.

Anderson v. Liberty Lobby, 477 U.S. 242, 248 (1986). When considering a motion for summary judgment, the court is not permitted to weigh the evidence or to make credibility determinations, but is limited to deciding whether there are any disputed issues and, if there are, whether they are both genuine and material. *Id.* The court's consideration of the facts must be in the light most favorable to the party opposing summary judgment and all reasonable inferences from the facts must be drawn in favor of that party as well. *Whiteland Woods, L.P. v. Township of West Whiteland*, 193 F.3d 177, 180 (3d Cir. 1999), *Tigg Corp. v. Dow Corning Corp.*, 822 F.2d 358, 361 (3d Cir. 1987).

When the moving party has carried its burden under Rule 56(c), its opponent must do more than simply show that there is some metaphysical doubt as to the material facts. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). In the language of the Rule, the nonmoving party must come forward with "specific facts showing that there is a genuine issue for trial." FED. R. CIV. P. 56(e). Further, the nonmoving party cannot rely on

unsupported assertions, conclusory allegations, or mere suspicions in attempting to survive a summary judgment motion. *Williams v. Borough of W. Chester*, 891 F.2d 458, 460 (3d Cir.1989) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986)). The non-moving party must respond “by pointing to sufficient cognizable evidence to create material issues of fact concerning every element as to which the non-moving party will bear the burden of proof at trial.” *Simpson v. Kay Jewelers, Div. Of Sterling, Inc.*, 142 F. 3d 639, 643 n. 3 (3d Cir. 1998), quoting *Fuentes v. Perskie*, 32 F.3d 759, 762 n.1 (3d Cir. 1994).

IV. DISCUSSION

Plaintiff has withdrawn his claims of design strict liability, manufacturing strict liability, negligent product design, negligent product manufacturing, and all breach of warranty claims. Plaintiff has preserved, and will pursue, his claims of failure to warn strict liability, negligent failure to warn and negligence per se.

A. Negligence Per Se

It is axiomatic that the elements of a negligence-based cause of action are a duty, a breach of that duty, a causal relationship between the breach and the resulting injury, and actual loss. *See Campo v. St. Luke’s Hospital*, 755 A.2d 20, 23-24 (Pa. Super. 2000). When considering the question of duty, it is necessary to determine “whether a defendant is under any obligation for the benefit of the particular plaintiff...and, unless there is a duty upon the defendant in favor of the plaintiff which has been breached, there can be no cause of action based upon negligence.” *J.E.J. v. Tri-County Big Brothers/Big Sisters*, 692 A.2d 582, 584 (Pa. Super. 1997). To pursue a negligence per se claim under Pennsylvania law, Plaintiff must establish a breach of a legislative enactment which stands in as the applicable duty of care. *Shamnoski v. PG Energy, Div. of S. Union Co.*, 858 A.2d 589, 601 (Pa. 2004) (negligence per se requires a specific legislative

enactment that “leave[s] little question that a person or entity found in violation of it deviated from a reasonable standard of care”). In other words, the traditional reasonable person standard of care is “superseded, and the standard set forth in a particular statute or ordinance enacted by the legislature . . . provide[s] the applicable standard of care.” *See Sharp v. Artifex, Ltd.*, 110 F. Supp. 2d 388, 392 (W.D. Pa. 1999).

“Pennsylvania recognizes that a violation of a statute or ordinance may serve as the basis for negligence per se.” *Wagner v. Anzon, Inc.*, 684 A.2d 570, 574 (Pa. Super. 1996) (citing *White by Stevens v. Se. Pa. Transp. Auth.*, 518 A.2d 810, 816 (Pa. Super. 1996)). In order to prove a claim based on negligence per se, a plaintiff must establish four elements: (1) the purpose of the statute or regulation must be, at least in part, to protect the interest of a group of individuals, rather than the public generally; (2) the statute or regulation must clearly apply to the conduct of the defendant; (3) the defendant must violate the statute or regulation; and (4) the violation of the statute or regulation must be the proximate cause of the plaintiff’s injuries. *See Mahan v. Am-Gard, Inc.*, 841 A.2d 1052, 1059 (Pa. Super. 2003); *Wagner v. Anzon, Inc.*, 684 A.2d at 574.

Plaintiff’s negligence per se claim is premised upon Defendants’ alleged violation of the Toxic Substances Control Act (the “TSCA”), 15 U.S.C. § 2601, and its amendments under the Mercury Export Ban, Pub. L. 110–414, § 1 et seq., 122 Stat. 4341 (Oct. 14, 2008). (Am. Compl. at ¶ 65.) As an initial matter, neither the TSCA nor its Mercury Export Ban amendments provide a private right of action for money damages. In *Cudjoe v. Department of Veterans Affairs*, 426 F.3d 241 (3d Cir. 2005) the Court of Appeals for the Third Circuit stated:

The only citizens’ suits allowed under 15 U.S.C. § 2619 are to enjoin violations of the Toxic Substances Control Act, not for money damages. Courts have held that the Toxic Substances Control Act does not permit private citizens to pursue either civil . . . or compensation for personal injuries.

Id. at 248 n.5 (Internal citations omitted); *See also N'Jai v. Bentz*, 2015 U.S. Dist. LEXIS 116168, *13-*14 (W.D. Pa. Sept. 1, 2015).

Further, both of the statutes which Plaintiff seeks to invoke were enacted after the last vacuum tubes at issue were produced in the late-1960s. Specifically, the TSCA went into effect in 1977 and its amendments under the Mercury Export Ban were adopted in 2008. Given that Inman's intended application of these statutes and any regulations promulgated thereunder would "increase a party's liability for past conduct, or impose new duties with respect to transactions already completed," such an application is deemed to have a retroactive effect. *Matthews v. Kidder, Peabody & Co., Inc.*, 161 F.3d 156, 159-60 (3d Cir. 1998), *cert. denied*, 526 U.S. 1067 (1999). Plaintiff fails to direct this Court to any evidence that it was Congress' intent that these statutes be retroactively applied.

Finally, with regard to the first element necessary to establish a negligence per se claim, Plaintiff fails to demonstrate that the statutes allegedly violated protect a class of persons which is narrower than the general public. Nothing in the TSCA or its amendments indicates that the purpose of the statutes is to protect a class of purpose other than the general public. The Court finds that the alleged violations of the TSCA and/or its Mercury Export Ban amendments do not establish negligence per se.

B. Failure to Warn

The Pennsylvania Supreme Court adopted Section 402A of the Restatement (Second) of Torts and the doctrine of strict products liability as the law of Pennsylvania approximately fifty (50) years ago. *Webb v. Zern*, 220 A.2d 853 (Pa. 1966). Section 402A provides:

Special Liability of Seller of Product for Physical Harm to User or Consumer

(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if

- (a) the seller is engaged in the business of selling such a product, and
 - (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it was sold.
- (2) The rule stated in Subsection (1) applies although
- (a) the seller has exercised all possible care in the preparation and sale of his product, and
 - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

RESTATEMENT, (SECOND) OF TORTS § 402A. The Section 402A burden for proving that a product sold was “unreasonably dangerous” as to the user is met by proving both the defect and the causation. *Berkebile v. Brantly Helicopter Corp.*, 337 A.2d 893, 898 (Pa. 1975). It has long been the law in Pennsylvania that a “defective condition” includes the lack of adequate warnings or instructions required for a product’s safe use. *Id.* In *Berkebile*, a case involving the strict liability of a helicopter manufacturer, the Pennsylvania Supreme Court wrote:

A “defective condition” is not limited to defects in design or manufacture. The seller must provide with the product every element necessary to make it safe for use. One such element may be warnings and/or instructions concerning use of the product. A seller must give such warnings and instructions as are required to inform the user or consumer of the possible risks and inherent limitations of his product. RESTATEMENT (SECOND) OF TORTS Section 402A, comment h. If the product is defective absent such warnings, and the defect is a proximate cause of the plaintiff’s injury, the seller is strictly liable without proof of negligence. . . . Where warnings or instructions are required to make a product non-defective, it is the duty of the manufacturer to provide such warnings in a form that will reach that ultimate consumer and inform of the risks and inherent limits of the product. The duty to provide a non-defective product is non-delegable. . . .

Berkebile v. Brantly Helicopter Corp., 337 A.2d at 100-103 (citations omitted).

Therefore, there are three different types of defective conditions that can give rise to a strict liability claim: design defect, manufacturing defect, and failure-to-warn defect. *Walton v. AVCO Corp.*, 610 A.2d 454, 458 (1992). Plaintiff no longer contends that Defendants’ products were defectively designed or manufactured. *See* Inman Response, p. 19. Instead, he contends

that Defendants' failure to warn him that the vacuum tubes contained mercury and that long-term exposure to mercury could cause serious illness, was the cause of his injury. Plaintiff admits that he acquired the vacuum tubes at issue from flea markets, garage sales, estate sales, his school's electronic department and from on-line dealers. Plaintiff CSF ¶ 2. Plaintiff further contends that before his mercury diagnosis, he did not know that Defendants' vacuum tubes contained mercury and that he was unfamiliar with mercury⁶. Plaintiff CSF ¶ 29. Defendants CBS and GE assert, however, that each new Type 83, 866/866-A or 872/872-A vacuum tube was originally distributed with instructions identifying the tube as a "mercury vapor rectifier." *See* CBS/GE Resp. to Plaintiff CSF, Exs. L-P.

With regard to Plaintiff's claims that Defendants failed to: (1) recall; (2) issue public service announcements; or (3) otherwise disseminate the risk of their tubes, which they knew were still in the stream of commerce without warning or instructions, such claims fail as a matter of law. Courts in Pennsylvania have ruled that no post-sale duty to warn exists where the plaintiff has not alleged that the product at issue had a latent defect at the time it left the manufacturer that would make the product dangerous for everyday use. *See e.g. DeSantis v. Frick*, 745 A.2d 624, 630 (Pa. Super. 1999); *Lynch v. McStome & Lincoln Plaza Associates*, 548 A.2d 1276 (Pa. Super. 1988); *Habecker v. Clark Equip. Co.*, 797 F. Supp. 381 (M.D. Pa. 1992), *aff'd* 36 F.3d 278 (3d. Cir. 1994), *cert. denied*, 514 U.S. 1003 (1995); *Padilla v. Black & Decker Corp.*, 2005 U.S. Dist. LEXIS 4720, 18-19 (E.D. Pa. Mar. 24, 2005).

In *Walton v. Avco Corp.*, *supra.*, the Supreme Court of Pennsylvania recognized a manufacturer's limited post-sale duty to warn. In *Walton*, the estates of two persons killed in a

⁶ Contrary to Plaintiff's contention, in May 2005, he admitted to knowing mercury was a heavy metal, that mercury could cause the symptoms similar to Lyme disease, and that he then had elevated levels of mercury and lead in his system. *See* CBS/GE Resp. to Plaintiff CSF, Ex. Q.

helicopter crash sued, among others, Hughes Helicopter, Inc., the helicopter manufacturer. Plaintiffs alleged that Hughes Helicopter had incorporated an engine with a defective part into the helicopter, then had failed to warn the owners of the helicopter after it received a service bulletin from the engine manufacturer detailing the exact defect at issue in the case, as well as how to repair it; the jury returned a verdict in plaintiffs' favor. *Walton v. AVCO Corp.*, 610 A.2d at 457. The Court upheld the imposition of a duty to warn on Hughes Helicopter, noting that "it has long been the law in Pennsylvania that a "defective condition" includes the lack of adequate warnings or instructions required for a product's safe use." *Id.* at 458 (citations omitted).

The Court in *Walton* also emphasized that the particular context of that case made the imposition of a post-sale duty to warn appropriate. First, the Court noted that Hughes' duty to warn stemmed from its actual knowledge of the defect in the engine. *Id.* at 457. This limitation is consistent with the Superior Court of Pennsylvania's holding in *Lynch v. McStome & Lincoln Plaza Associates, supra*. that no post-sale duty to warn existed where no defect existed in the product at the time of sale. After *Walton*, other Pennsylvania courts have continued to recognize the distinction between circumstances in which a plaintiff attempts to impose a post-sale duty to warn where the product was defective from the date of the manufacture and where the manufacturer had notice of the defect and those in which the product was not defective at the time of the sale. *See Sullivan v. Modern Group, Ltd.*, 46 Pa. D. & C. 4th 524, 531 (Pa. Ct. Com. Pl. 2000) ("The most important distinction between [*Walton*] and [*Lynch*] is that in *Walton* . . . the product was defective from the date of the manufacture and where the manufacturer had notice of the defect. . . . in *Lynch*, the product was not defective at the time of the sale"); *DeSantis v. Frick*, 745 A.2d at 630 ("This Court has ruled that no post-sale duty to warn exists where no defect existed in the product at the time of sale.").

Here Plaintiff makes no claim that the vacuum tubes at issue had a latent defect in either their design or manufacture at the time of sale or distribution that would make the product dangerous for everyday use. Accordingly, the Court finds as a matter of law that Defendants had no continuing duty to warn in this instance, and any claim based upon such contention shall be dismissed. Nor is there a duty in Pennsylvania to recall a product. *See Boyer v. Case Corp.*, 1998 U.S. Dist. LEXIS 5847 (E.D. Pa. 1998) (declining to extend *Walton* to include a duty to recall and retrofit); *see also Girard v. Allis Chalmers Corp., Inc.*, 787 F. Supp. 482, 486 n.3 (W.D. Pa. 1992). Any claim based upon such post-sale duty shall be dismissed.

Plaintiff also claims that Defendants' vacuum tubes were defective because they were distributed without any warning regarding the presence of mercury and the effects of exposure to mercury. A product is defective due to a failure to warn where the product was "distributed without sufficient warnings to notify the ultimate user of the dangers inherent in the product." *Mackowick v. Westinghouse Electric*, 575 A.2d 100, 102 (Pa. 1990). The duty to warn does not require manufacturers to instruct all beginners or foreseeable users on the intricacies of and principles underlying the product. *Id.* However, the warning must notify the intended users of the unobvious dangers inherent in the product. *Makadji v. GPI Div. of Harmony Enters.*, 2006 U.S. Dist. LEXIS 87530, 10-11 (E.D. Pa. Dec. 1, 2006) (citing *Mackowick v. Westinghouse Electric*, 575 A.2d at 102).

As with the design defect and manufacturing defect types of strict liability claims, a plaintiff raising a failure to warn claim must establish only two things: that the product was sold in a defective condition "unreasonably dangerous" to the user, and that the defect caused plaintiff's injury. *Walton v. Avco Corp.*, 610 A.2d at 458. The Court of Appeals for the Third Circuit identified three elements a plaintiff must prove under Pennsylvania law to recover under section 402A: (1) that the product was defective; (2) that the defect was a proximate cause of the

plaintiff's injuries; and (3) that the defect causing the injury existed at the time the product left the seller's hands. *Schrim v. Campbell Soup Co.*, 2007 U.S. Dist. LEXIS 62037, *12 (W.D. Pa. Aug. 16, 2007) (citing *Pavlik v. Lane Limited/Tobacco Exporters Int'l*, 135 F.3d 876, 881 (3d Cir. Pa. 1998)).

With regard to the first element, the Pennsylvania Supreme Court expressly overruled its decision in *Azzarello v. Black Brothers Company*, 391 A.2d 1020 (Pa. 1978), and held that:

Whether a product is in a defective condition is a question of fact ordinarily submitted for determination to the finder of fact; the question is removed from the jury's consideration only where it is clear that reasonable minds could not differ on the issue. Thus, the trial court is relegated to its traditional role of determining issues of law, e.g., on dispositive motions, and articulating the law for the jury, premised upon the governing legal theory, the facts adduced at trial and relevant advocacy by the parties.

Tincher v. Omega Flex, 104 A.3d 328, 335 (Pa. 2014). The Court, in this instance, need not address this first required element as Plaintiff's claim fails based upon his failure to prove that the mercury or mercury vapor contained in the vacuum tubes manufactured and/or supplied by the Defendants caused his injury.

In the context of a failure to warn case, to satisfy the second prong, the plaintiff must establish that it was the total lack or insufficiency of a warning that was both a cause-in-fact and the proximate cause of the injuries. *Pavlik v. Lane Limited/Tobacco Exporters Int'l*, 135 F.3d at 881; *see also See Greiner v. Volkswagenwerk Aktiengesellschaft*, 540 F.2d 85 (3d Cir. 1976); *Conti v. Ford Motor Co.*, 743 F.2d 195, 197 (3d Cir. 1984). To establish probable cause, "the evidence must be such as to support a reasonable inference, rather than a guess, that the existence of an adequate warning might have prevented the injury." *Dorshimer v. Zonar Sys.*, 145 F. Supp. 3d 339, 355 (M.D. Pa. 2015) (quoting *Pavlik v. Lane Limited/Tobacco Exporters Int'l*, 135 F.3d at 881). A plaintiff, therefore, must demonstrate that the user of the product would have avoided

the risk had he or she been warned of it by the seller. *See Lynn v. Yamaha Golf-Car Co.*, 894 F. Supp. 2d 606, 640 (W.D. Pa. 2012).

Plaintiff testified that he did not know the vacuum tubes at issue contained mercury. Plaintiff CSF ¶ 3. Once he learned the tubes contained mercury, Plaintiff stopped using the vacuum tubes. Plaintiff CSF ¶ 27. Because there were no warnings on the vacuum tubes at issue, the Court finds that such testimony is sufficient to establish that Plaintiff would have changed his conduct and avoided the risk had he been warned of such risk.

Plaintiff, however, fails to establish Defendants' products were the cause-in-fact of his injuries. Plaintiff argues that his case is "simple" as: (1) it is undisputed that he suffers from mercury poisoning; (2) Defendants' vacuum tubes were the source of his mercury poisoning; (3) Defendants did not warn of this danger when the tubes were manufactured or distributed; and (4) exposure to mercury from Defendants' vacuum tubes caused his injuries.

Because Plaintiff says it is so, however, does not make it so. Indeed, where a plaintiff fails to come forward with evidence to demonstrate that a defendant's products caused his or her injuries, summary judgment in favor of a defendant is appropriate. *Dick v. Am. Home Prods. Corp.*, 2009 U.S. Dist. LEXIS 130252, *8-*9 (M.D. Pa. June 2, 2009) (citing *Eckenrod v. GAF Corp.*, 544 A.2d 50, 52 (Pa. Super. 1988) ("Summary judgment is proper when the plaintiff has failed to establish that the defendants' products were the cause of [his or her] injury."); *Bushless v. GAF Corp.*, 585 A.2d 496, 499 (Pa. Super. 1990) ("In order for liability to attach in a products liability suit, a plaintiff must establish that the injuries were caused by a product of the particular manufacturer"). The Pennsylvania Supreme Court explained the burden as follows:

[I]t is well established that proof of injury alone, without more, or of the existence of the negligent condition without showing that it caused the injury complained of, is insufficient to establish a case of liability. Proving that an accident happened, or the existence of an opportunity for it to happen in the manner alleged, is entirely insufficient to establish negligence. Plaintiff must go further

and show not only defendant's negligence, but that the injuries complained of were the result of such negligence.

Ucci v. Keane, 167 A.2d 147, 150 (Pa. 1961) (internal quotations and citations omitted); *see also* *Sherk v. Daisy-Heddon*, 450 A.2d 615, 617 (Pa. 1982) ("Liability in negligence or strict liability is not imposed upon a manufacturer simply for the manufacture of a defective product. Rather, the plaintiff must demonstrate that the injuries sustained were proximately caused by the product's defect.").

In a case regarding injury due to alleged exposure to radiation, the Court of Appeals for the Third Circuit, regarding the causation element, found that each plaintiff had to present evidence of "doses of radiation sufficient to cause" his or her injury. *In re TMI Litig.*, 193 F.3d 623 (3d Cir. Pa. 1999). In that regard, the court specifically held that the "critical issue ... is the [] plaintiffs' ability to demonstrate that they were exposed to doses of radiation sufficient to cause their neoplasms." *Id.* at 622-23.

Expert testimony is generally required in products liability cases, unless the issues are "simple" and "within the range of comprehension of the average juror." *Westfield Ins. v. Detroit Diesel Corp.*, 2012 U.S. Dist. LEXIS 64301, *9-*10 (W.D. Pa. May 8, 2012) (citing *McCracken v. Ford Motor Co.*, 392 F. App'x 1, 3 (3d Cir. 2010)). Courts, therefore, "routinely require plaintiffs to support their claims with expert testimony when the subject matter is highly technical and beyond the jury's understanding." *Id.* (citing *Oddi v. Ford Motor Co.*, 234 F.3d 136, 159 (3d Cir. 2000)) ("We do not believe that a juror could look at the front bumper and the flooring of the cab of the truck [plaintiff] was driving and reasonably conclude, not only that its design was defective, but also that testing would have disclosed the defect and that it could have been remedied. Such conclusions are within the peculiar competence of experts."); *McCracken v. Ford Motor Co.*, 392 F. App'x at 3 (concluding that plaintiff was required to support his strict

products liability and defective design claim—that a car windshield failed to shield him from radiation—with expert testimony because of the “highly technical nature of the subject matter”).

Instantly, the Court finds that Plaintiff must support his claim, that the vacuum tubes at issue caused his mercury poisoning, with expert testimony. Because of the complex issues involved, both scientific and medical, competent expert testimony is required for Plaintiff to establish both exposure and causation. *See Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 153 (3d Cir. 1999). Competent expert evidence is required because without it, the jury would be forced to impermissibly speculate about the ultimate issues in this case. *See Marino v. Maytag Corp.*, 2005 U.S. Dist. LEXIS 22377, *13 (W.D. Pa. Sept. 29, 2005). Absent proof of exposure to mercury from Defendants’ vacuum tubes which actually caused Plaintiff’s injury, therefore, Plaintiff cannot prevail on any of his theories of recovery, whether they sound in strict products liability or negligence.

Plaintiff testified that of the NL vacuum tubes he used, he only experienced a failure, described as an “exhaust tip failure,” in four of the NL-635. There is no evidence in the record, however, that such failures actually caused the release of mercury or mercury vapor. Plaintiff’s expert, Melvin R. Kantz, Ph.D. (“Dr. Kantz”), opined that “[t]he mercury vapor rectifier tubes **contained sufficient mercury to be capable** of releasing harmful quantities of mercury vapor,” and that it was “foreseeable that the subject tubes **had the potential to release** more than trace amounts of mercury.” *See* R/V Appx. Ex. 21 (emphasis added). Dr. Kantz, in fact, admits that he did no testing on the vacuum tubes with respect to failure modes suggested by Plaintiff. Kantz Depo. pp. 12-13. Dr. Kantz further admits that he did no scientific evaluation with regard to

whether any of those failure modes⁷ could result in the release of mercury and/or mercury vapor from the vacuum tubes. *Id.* at pp. 60-61. Instead, Dr. Kantz simply accepted Plaintiff's "description of the failure mode as he described them ..." and is "not testifying to their scientific or technological reasonability." *Id.* at p. 62. Dr. Kantz's only objective in this matter was to provide "an estimate of the amount of mercury that could be released from [a particular type of] tube based on the amount of mercury in [that type of] tube." *Id.* at p. 61. Specifically with regard to NL-635 tubes, Dr. Kantz admittedly did not address such tubes and has no opinion as to what amount of mercury vapor, if any, was released as a result of an exhaust tip failure. *Id.* at p. 132. Whether the vacuum tubes were potentially dangerous is irrelevant without expert testimony regarding whether the failure modes suggested resulted in the release of mercury.

Ludwell Sibley ("Sibley"), the only vacuum tube expert in this case, indicated that the implication in Dr. Kantz's report that all of the mercury vapor contained within a vacuum tube was immediately released and breathed in by Plaintiff upon failure was without scientific basis. *See R/V Appx. Ex. 11.* Because the tubes at issue were under vacuum and not under pressure "there is no inherent force within the tube which would cause it to instantaneously release the entirety of the mercury vapor at once into the Plaintiff's workshop environment." *Id.* Upon any failure of a vacuum tube envelope, ambient air would "enter the tube envelope and mingle with the mercury vapor within" the tube. *Id.* Any release of vapor would occur only "due to natural changes in the air pressure between the contents of the tube and the ambient air within Plaintiff's workshop." *Id.* Any release of mercury into Plaintiff's workshop due to a compromise of the envelope "would have taken days, weeks, even years [for] all [the within mercury to] be released rather than within seconds or minutes as implied by Dr. Kantz." *Id.* Specifically with regard to

⁷ Moreover, Plaintiff has no expert testimony to show that any of the four (4) failure modes suggested are even scientifically possible. *See i.e. Kantz Depo. p. 62.*

the NL-635 vacuum tubes and the alleged exhaust tip failure, Sibley opined: “to a reasonable degree of scientific certainty and based on a substantial amount of experience, it would be almost impossible for any but an insignificant amount of mercury vapor from these four NL-635/7019 tubes to be released instantaneously after an exhaust tip failure...” *Id.*

Plaintiff’s medical expert, Karl E. Williams, M.D. (“Dr. Williams”) also fails to establish that Defendants’ products were the cause of Plaintiff’s injury. Without evidence of either exposure or dose, Dr. Williams made the following conclusory statement:

It is clear, given the massive amount of mercury in [Plaintiff’s] total body load, that these vacuum tubes are the only logical documented source of his mercury toxicity. . . Therefore, it is my opinion, within a reasonable degree of medical certainty that the severe neurologic and Central Nervous System symptoms documented in [Plaintiff] are a direct result of the mercury toxicity caused by working with these vacuum tubes.

See R/V Appx. Ex. 22. Dr. Williams admitted that he was not an expert on vacuum tubes.

Williams Depo. p. 40. He, therefore, has no scientific basis upon which to opine that the vacuum tubes at issue were a substantial factor in causing Plaintiff’s injury.

To survive a motion for summary judgment, Plaintiff must do more than simply show that there is some metaphysical doubt as to the material facts, and certainly cannot rely on unsupported assertions, conclusory allegations, or mere suspicions. The court in TMI stated that: “A court is not precluded from granting summary judgment merely because expert testimony is admitted. If, even given the proffered expert testimony, the proponent still has failed to present sufficient evidence to get to the jury, summary judgment is appropriate.” TMI, 193 F.3d at 716 (quotation omitted). Plaintiff must direct this Court to sufficient cognizable evidence to create material issues of fact concerning every element as to which he will bear the burden of proof at trial. Absent proof that Plaintiff’s injury was caused by exposure to mercury originating from

Defendants' vacuum tubes, Plaintiff cannot prevail on either his products liability claim or his negligence claims.

V. CONCLUSION

Based on the foregoing, the Court will grant the motions for summary judgment filed on behalf of the Defendants in this matter. An appropriate order will follow.

s/David Stewart Cercone
David Stewart Cercone
United States District Judge

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(Via CM/ECF Electronic Mail)